

1 PER ANNEXES

[THIS PAGE REPLACES TEXT FROM PAGE 4 LINE 18
TO PAGE 5 LINE 18 OF ENGLISH TRANSLATION
OF SPECIFICATION]

Best Mode of Carrying Out the Invention

According to the method of this invention of manufacturing a stainless steel product by nitrogen absorption treatment, a bulk product of ferritic stainless steel made by melting, forming and machining into a desired shape is brought into contact with an inert gas containing nitrogen at or above 800°C so as to austenitize completely. A technique of bringing a bulk product having a desired shape into contact with an inert gas containing nitrogen at or above 800°C belongs to a nitrogen absorption treatment classified as a solid-phase absorption method. Nitrogen is added to the whole product by heating it to or above 800°C in an inert gas atmosphere containing nitrogen. The method of this invention of manufacturing a stainless steel product by nitrogen absorption treatment makes it possible to obtain a product having a desired shape easily, since the product to which nitrogen is added is made of a ferritic stainless steel which is easier to work than austenitic stainless steel. The scale of equipment in the powder metallurgy method, limits to shaping and mechanical reliability of products is dissolved.

The stainless steel product of this invention which can be obtained as described is completely austenitized. Therefore, the stainless steel product of this invention is outstanding in both corrosion resistance and strength and is advantageously an inexpensive product, since its cost of processing is low, even if it has a complicated shape. The addition of at least about 0.5% by mass of nitrogen to a bulk product of ferritic stainless steel is sufficient for achieving the results as mentioned above.